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Saarikoski, A.

2018-02

Saarikoski , A , Koppeli , R , Salanterä , S , Taskinen , S & Axelin , A 2018 , ' Voiding school as a treatment of daytime incontinence or enuresis : Children's experiences of the intervention ' , Journal of Pediatric Urology , vol. 14 , no. 1 , ARTN 56.e1-56.e7 . https://doi.org/10.1016/j.jpurol.2017.

http://hdl.handle.net/10138/300722
https://doi.org/10.1016/j.jpurol.2017.09.009

publishedVersion

Journal of Pediatric Urology (2018) 14, 56.e1–56.e7

Voiding school as a treatment of daytime incontinence or enuresis: Children's experiences of the intervention

A. Saarikoski [a,b], R. Koppeli [a], S. Salanterä [b], S. Taskinen [a], A. Axelin [b]

[a]Children's Hospital, Helsinki University Central Hospital, Helsinki, Finland

[b]Department of Nursing Science, University of Turku, Turku, Finland

Correspondence to:
A. Saarikoski, Children's Hospital, Helsinki University Central Hospital, P.O. Box 223, FIN-00029 HUS, Finland,
Tel.: +35 8407257606

anpasaa@utu.fi
(A. Saarikoski)

Keywords
Children's experiences; Voiding school; Daytime incontinence; Enuresis; Urotherapy

Received 20 May 2017
Accepted 10 September 2017
Available online 23 September 2017

Summary

Background
Daytime incontinence and enuresis are common problems in otherwise healthy children, and negatively influence their social lives and self-esteem. Motivation for treatment is often a real clinical problem. Children's experiences of their incontinence treatments have not been previously described.

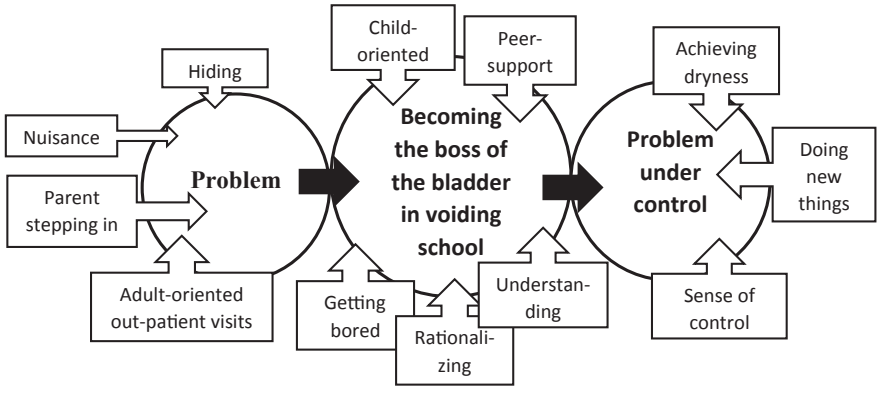
Objective
The aim of this study was to describe children's experiences of the Voiding School intervention as a treatment for their incontinence.

Study design
A qualitative, descriptive focus-group study with a purposive sample was conducted at a Finish university hospital in 2014. Children aged 6–12 years participated in the Voiding School at an outpatient clinic. The intervention included two 1-day group visits 2 months apart. The educational content was based on the International Children Continence Society's standards for urotherapy. The education was delivered with child-oriented teaching methods. At the end of the second visit, 19 children were interviewed in five groups. Data were analysed with inductive content analysis.

Results
The children described incontinence as an embarrassing problem, which they had to hide at any cost. They had experienced bullying and social isolation because of it. Normal outpatient visits emphasized adult-to-adult communication, which made the children feel like outsiders. The children perceived the Voiding School as a nice and child-oriented experience. Making new friends was especially important to younger boys who felt that the Voiding School day was too long and issue-oriented. In the Voiding School, videos and 'learning by doing' helped the children to understand the basis of given advice, and they were able to learn new habits, which gave them control over the incontinence; this helped them to become 'the boss of the bladder'. Sharing experiences and improvements in their incontinence with their peers supported the children's self-esteem and encouraged them to do new things, such as staying overnight with friends. These experiences helped them to acquire control over the problem (Summary Figure).

Discussion
According to the children's experiences, normal outpatient visits were only appointments for adults, and not very useful for children. In the Voiding School, they were respected as being the main person, and their views were listened to. The results underlined the importance of a child-oriented approach to patient education with regard to children, and provided encouragement to further develop the intervention.

Conclusion
Child orientation, peer support, learning by doing, and understanding the cause and effect helped children to gain control over their bladders. Based on the children's experiences, this could be achieved by a voiding school.



Summary Figure The themes arising from the children's expressions during the interviews.

https://doi.org/10.1016/j.jpurol.2017.09.009

Introduction

Daytime incontinence or enuresis has been observed in 10–25% of otherwise healthy children at the time they go to preschool or school [1,2]. Incontinence has a negative impact on children's quality of life, limits their social life, and worsens their self-esteem [3,4]. Improvements in self-esteem have been reported after successful treatment [5].

The basic treatment for children with incontinence is urotherapy. According to the International Children's Continence Society (ICCS) guidelines, standard urotherapy is an education-based treatment, including: explanations about normal bladder function, regular voiding habits, and lifestyle advice regarding fluid intake, proper diet and prevention of constipation [6]. One basic problem with urotherapy is how to motivate children. An important element in this is continuous support and encouragement for children and their families via regular appointments with their own urotherapists [6,7]. Other important components of successful treatment are the child-oriented teaching methods and the children's active participation in their own treatments [8,9]. However, children's perspectives are mostly observed from the parents' viewpoints [10], although the parents' role should be to support and share the responsibility of care [11].

Different bladder training programs or voiding schools (VS) for small groups of children have been reported to improve the treatment results in therapy-resistant cases [12,13]. The use of peer groups in patient education is realistic as a means to improve children's feelings of normality and their own social competence [14,15]. Successful patient education requires that nurses and patients speak the same language. School-aged children's ability to learn and understand is based on concrete thought processes [16]. The content of education, teaching strategies and materials should be planned in consideration of the children's developmental stage, as well as their cognitive and psychosocial characteristics.

Although different urotherapy interventions have indicated that they are effective in decreasing symptoms [17] and improving the quality of life [5], it is believed that children's experiences in their treatments have not been previously explored. The aim of the current study was to describe children's experiences of VS as a treatment for their incontinence, in an attempt to understand how to motivate children to treat incontinence for the further development of interventions.

Material and methods

Participants

Participants were 19 children with a median age of 8 years (range 6–12) who were referred to an urotherapist at the university hospital for daytime incontinence or enuresis. All of them had visited a doctor and an urotherapist, and tried one or more treatments such as medication, alarm, and lifestyle advice before attending VS. At the VS children were divided into groups of the same gender and about same age. The interviewed groups consisted of five VS groups (Table 1).

Intervention

The VS included two 1-day group visits, 6 h each, 2 months apart, and was led by two urotherapists. The educational content was based on the ICCS standards for urotherapy [6].

The first VS day began with a short discussion with the parent to assess the child's situation with incontinence. When all of the children had arrived and the parents had left,

Table 1 Background information of the interviewed children.

ID	Interview group	Gender	Age, years	Type of incontinence	Increase in weekly dry days and nights at Voiding school
C1	1	Girl	8	Day and night	4 and 1
C2	1	Girl	8	Day	3
C3	1	Girl	9	Day	1
C4	1	Girl	8	Night	3
C5	2	Girl	9	Day and night	4 and 1
C6	2	Girl	11	Day	4 (dry)
C7	2	Girl	9	Day and night	1 and 0
C8	2	Girl	10	Day	4
C9	3	Boy	6	Night	5 (dry)
C10	3	Boy	7	Day and night	0 and 6
C11	4	Boy	10	Day and night	2 and 1
C12	4	Boy	7	Night	0
C13	4	Boy	11	Night	6
C14	4	Boy	8	Day	4 (dry)
C15	4	Boy	8	Day	4 (dry)
C16	5	Girl	7	Day and night	2 and 3
C17	5	Girl	7	Day and night	7 and 2 (dry)
C18	5	Girl	8	Day	4
C19	5	Girl	7	Day and night	3 and 2 (dry)

Table 2 The interview guide.

1) What things did the children remember from VS?
2) Was VS useful according to the children's opinions?
3) Have voiding accidents been reduced?
4) What have the children learned?
5) In what ways have the learned things appeared at home, in school and during hobbies?
6) Has incontinence prevented children from doing something?
7) Have there been any bad situations because of wetting?
8) How do the children feel about meeting other children with incontinence?
9) Would the children come to VS again?

VS, voiding school.

the children were encouraged to talk to each other about their bladder problems. During the first day, the children were educated on incontinence and its treatment, by talking, watching videos, drawing, gluing pictures, etc. At the end of the day, each child, parent and urotherapist discussed any individual advice and homework. The second VS day had a similar basic structure, but the content of the education was carried out based on the children's individual learning needs and questions, and differed somewhat in each group. The children were requested to tell each other what they had learned and done differently after the first VS day, and whether they had noticed any changes in wetting episodes.

Interviews and background information

All 19 children were interviewed in their VS groups at the end of the second visit in familiar surroundings by both of the urotherapists who led the VS. During the interviews, the children were encouraged to talk about incontinence and share their experiences of VS, even if it felt embarrassing. In the beginning of the interviews, the children were quieter than usual. The interview guide was used if necessary to direct the conversation to the subject (Table 2). Otherwise, the interviewers attempted to not interfere with the conversation, which became livelier during the interview in each group. Each interview lasted about 30 min.

Background information was collected from the referrals and discussions with the children and their parents. Changes in wetting episodes were assessed with 1-week voiding diaries before and after VS.

Data analysis

The data were analysed with inductive content analysis in collaboration by two researchers (AS and AA). The approach was to produce themes arising from the children's original expressions without interpretation [18]. First, the audiotapes were carefully listened to and transcribed, and then the interviews were read several times, in order to obtain an overall understanding of the data. In the second phase the data were coded with concepts that described children's experiences (e.g. bullying) [19]. After identifying the features of the data with coding, the codes that shared the same patterns were clustered to sub-themes (e.g. hiding). In the last phase, sub-themes were clustered into main themes (e.g. problem) (Table 3). The analysis process resulted in 32 codes describing the children's experiences of incontinence and VS. The clustering of the codes led to 12 sub-themes and finally to three main themes. The analysis process involved constant movement back and forth between the different stages of the analysis, and several discussions between the authors concerning the data, codes, sub-themes and main themes.

Permission for the study was obtained from the Hospital District of Helsinki and Uusimaa (12/2014). The Ethics Committee for Gynaecology and Obstetrics, Paediatrics and Psychiatry approved the study (51/13/03/03/2014). The participating children gave verbal assent, and the parents gave their written informed consent for participation.

Results

The children described wetting as a big problem in their daily lives. The VS helped them to become 'the boss of the

Table 3 An example of the analysis process (coding and formulating themes).

Original expression	Code	Sub-theme	Main theme
C1: 'I've been bullied because of wetting myself.'	**Bullying**	**Hiding**	**PROBLEM**
C19: 'Sometimes you can take spare clothes from your bag in secret and mates could tease if they see it.'			
C3 'It has not been noticed, I can't stand bulling.'			
C5: 'It is an embarrassing matter, you can't talk about it.'	**Embarrassing**		
C18: 'Terrible if you have a big spot on your trousers and everyone see it'			
C3: 'It was an embarrassing situation, when I peed myself in afternoon club and had no spare clothes with me in some reason.'			
C11: 'It's so that you can't stay overnight with a friend'	**Fear of revelation**		
C1: 'One day I wet myself in classroom and have to sit and wait until everyone had left and it was hard.'			
C7: 'I don't even dare to stay overnight with friend, if then in the night I wet the bed.'			

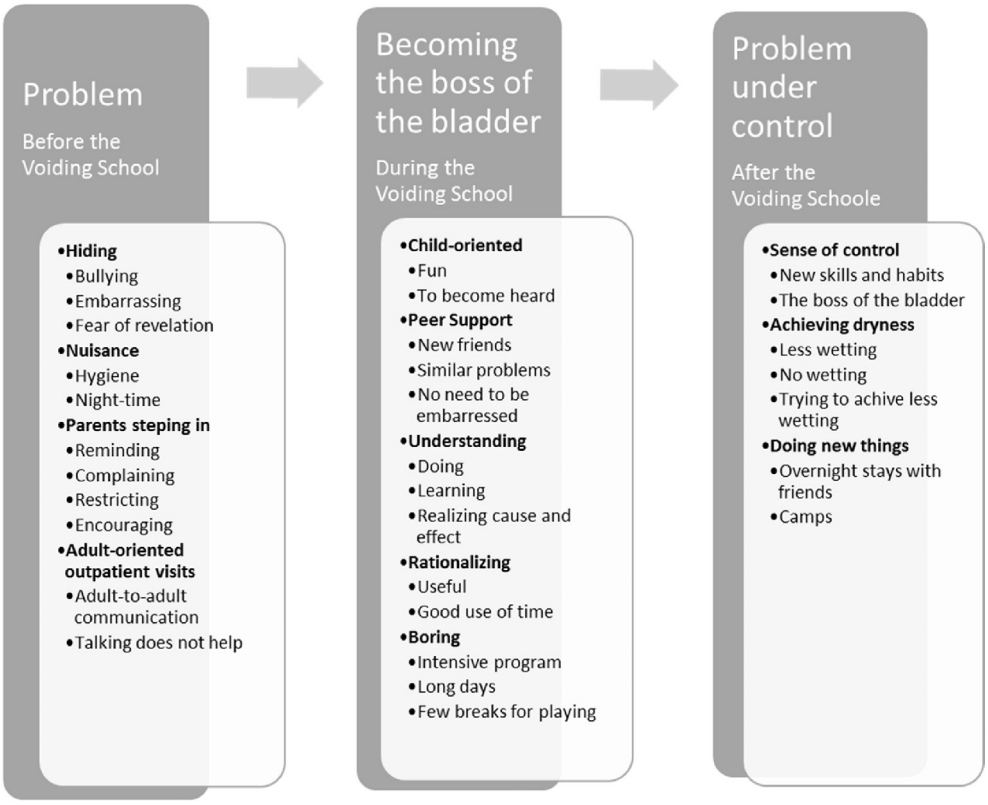


Figure 1 The process of becoming 'the boss of the bladder' with the help of the Voiding School.

bladder', and afterwards they had acquired control over their bladder problems (Fig. 1).

Problem

The children described wetting as an embarrassing and shameful problem they had to hide by all possible means. The children felt unable to control their bladder functions and therefore had a fear of having wet clothing during schooldays and leisure activities. They were afraid of bullying and had experienced it from schoolmates. The children related that sometimes it was difficult to remember or have time to go to the toilet in school or when playing with friends, even though they knew it was important and helped to keep them dry. Incontinence was also a problem during the nighttime, since it prevented overnight stays with friends and participation in camps. The children experienced this limitation in social life as the most significant consequence of incontinence.

> *If you wet yourself when visiting friends, it's little bit embarrassing or dreadfully embarrassing.* (C17)

Incontinence was a nuisance in the children's everyday lives. Wet clothes were irritating, but changing took time and was difficult. A child indicated that when she wet herself in the middle of school lesson, she stayed in the classroom until everyone else had gone out to ensure that nobody saw her wet clothing. The children considered that it was very tough to change sheets and pyjamas during the night. The nighttime darkness set extra challenges; it made them scared. In addition, a bunk or loft bed was an extra hazard, since children were afraid of falling off the ladder when rushing to the toilet. It also made it more difficult to reach the toilet in time.

> *Enuresis is more bothering than day-time wetting, when I woke to it and really did not have energy to change the sheets at 12 o'clock at night.* (C7)

The children were irritated because their parents stepped in too often by reminding the children about toilet visits and asking about wetting. Sometimes the children felt that their parents were too demanding or got angry and compared them to little babies. The children experienced that parents sometimes thought that they were wetting on purpose, though the children had done their best to keep dry. At the same time, the parents' concern was found to be important for achieving dryness and was considered as a sign of caring.

> *Dad is reminding me quite a lot. It's dull, well, but on the other hand important.* (C11)

The children experienced normal outpatient visits as a dull duty. When the children visited a doctor or a nurse with their parents, the adults communicated mostly with each other. This led to the children becoming bored and feeling like outsiders. The children felt that the visits were useless, and they felt that they were not learning anything. It was only an appointment involving conversations between the parents and the healthcare practitioners.

> *When you visit a doctor with mum or dad, the doctor usually talks with them.* (C5)

Becoming 'the boss of the bladder' in the voiding school

The VS was a different kind of experience for the children compared to a normal outpatient visit. According to the children, the VS was a nice and fun experience, and making new friends was especially important for them. The child-oriented teaching methods made children feel that they were being treated as the main person. Spending the whole day with other children, sharing experiences, eating and playing outdoors together was also important to them.

There you can do many things; you just name it. Draw, play, talk about wetting problems and this is just so fun. (C16)

Some children, especially the younger boys, felt that the VS day was too long, and they got bored. Instead of sitting and learning things concerning voiding, they would have preferred playing with their new friends. A break, including playing outdoors before the afternoon snack, was a highlight of the day, which the children eagerly awaited.

It is dull, you must sit still all-day. (C10)

The children were able to evaluate the benefits of the VS by rationalizing. They understood that it might help them to get rid of wetting, although they did not think that VS was the best option. The children felt that it was their duty to take care of this troublesome issue. They were motivated to become dry because it was a prerequisite, for instance, for staying overnight with friends. For some children, the VS was a ploy to be absent from school and a better way to spend time.

Some things were fun, but I didn't like the VS so much. But I thought, that I take care of wetting and that is enough and then I don't have to come anymore. (C18)

In the children's opinion, the VS was worth a visit because they learned things that helped them to become dry. Learning by doing helped them to understand bodily functions and the basis of the advice given. After the VS, it was easier to learn and remember new habits concerning the better bladder control.

When you drink water, poo comes easier and pee is not so strong. (C2)

The peer support and meeting other children with the same kinds of problems was very important for the children. Before VS they had thought they were the only ones having incontinence problems. Sharing experiences with the other children supported their beliefs in their abilities to take care of the wetting. It was very important that in the VS the children could talk about wetting without embarrassment because everyone shared the same experience and knew what the others were going through.

Don't think you are the only one, that I'm the only one, who wet myself. Such things happen to everyone. (C17)

Problem under control

When the children attained becoming 'the boss of the bladder', the feeling of having their problem under control raised their self-esteem and helped them manage the situations that they had earlier felt were difficult. For example, they had the courage to stay overnight with friends and take part in camps. The children also learned new skills like going to toilet at certain times and drinking a glass of water before every meal. These new skills helped them to keep dry during schooldays, or at least, the wetting episodes significantly decreased.

I manage to keep dry during overnight stays. I go to toilet before going to bed and then my friend's mother usually wakes me up in the night. (C5)

All participating children said that they would attend VS again if necessary, and that they would recommend it to their friends if they had incontinence problems.

Discussion

The main finding of this study was that in VS the children experienced that they could take control of their incontinence themselves. The child-oriented approach and peer support clearly increased the children's motivation to learn and find solutions to tackle incontinence. In normal outpatient visits the children experienced themselves as outsiders, while doctors or nurses discussed mainly with the parents.

The most significant social restriction on the children in the current study was that they could not stay overnight with friends or participate in camps. Even if the child desired to go, the parents did not allow it because they wanted to protect the child from embarrassing situations and bullying. Parents' overprotective attitudes have also been described in a previous study exploring Swedish parents' experiences of enuresis [20]. During schooldays, the children were afraid of being exposed as having wet themselves, and they were forced to hide these accidents by all possible means. Similarly, Lundblad et al. [21] and Fischer et al. [22] pointed out that schoolchildren with incontinence problems live with the continuous fear of being exposed.

The current results underline the importance of a child-oriented approach to patient education, and provide encouragement to further develop VS in an attempt to improve children's treatment motivations. These results were similar to earlier studies describing children's experiences of hospitalisation. Children wished to be treated as active participants concerning their treatment [11,23]. The children felt that learning and remembering concrete advice was easier with the use of illustrations, pictures and videos instead of information directed at their parents. Younger boys might especially benefit if the VS day included more activities like play and games. However, although the child is the main person, the parent's role as the encourager is important for helping the child proceed with new habits in order to stay the boss of the bladder. As Cederblad et al. [20] indicated, parents require up-to-date information on how to support their children and treat incontinence.

The children felt that the possibility of talking about incontinence without embarrassment was very important and that it helped them to respond to incontinence more

naturally. These findings coincide with earlier studies highlighting the importance of peer groups and social acceptance among school-aged children [15,24,25]. It was the first time that the children had met other children with the same kind of wetting problems, and had the possibility of sharing experiences and discussing incontinence with a peer group. The group discussions and self-made timetables clarified the guidelines aiming at sustainable changes in the children's daily habits. The children felt that the given advice was useful and helped them to cope with the incontinence.

The current study had some limitations. One was that the interviewers also delivered the intervention. A desire to please and answer as expected might have influenced the children's expressions. On the other hand, the interviewers were experienced paediatric nurses with a broad knowledge of educating children on incontinence problems and talking about the problems without shame. In addition, the interviewers were aware of the need to avoid influencing the children's answers and views during the interviews. All of the interviews were conducted according to the same interview guide, to increase dependability. The quotations were used to strengthen the credibility of the results in the reporting phase of the study.

Another limitation of the study was that the children often used quite short sentences and brief expressions, thus limiting the richness of the data. Listening and transcribing the recordings immediately after each interview improved the interview technique from group to group. The data saturation was evident when no new topics arose from the interviews. Even though the target group was heterogeneous in age and development level, all of the children's experiences were close to each other, and it was possible to categorise them under the same themes. This increased the possibility of transferring the results to other children with incontinence problems.

Conclusions

The participating children experienced incontinence as a problem consisting of shame and social isolation. The VS was a positive and child-oriented experience. Learning by doing helped them to understand the basis of the given advice, and adopted knowledge helped the children gain control over their incontinence. The reduction of wetting episodes and peer support raised their self-esteem and, by becoming the bosses of the bladders, the children felt that the problem was under control.

The children's experiences that were described in this study can promote a better understanding of the child's point of view concerning incontinence and its treatment. An important message from the children was that incontinence treatment and patient education can be fun and engaging. The results underlined the importance of a child-oriented approach to patient education, with regard to children, and supported the further development of VS. The implementation of VS was supported by the children's (i.e. the end-users) perspectives. However, objective evidence on its effectiveness is needed before its wider implementation in clinical practice.

Conflict of interest

None.

Funding

None.

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